

What is claimed is:

1. A flow diverter valve assembly comprising:
 - 5 a valve body defining a plurality of flow passageways;
 - a rotatable diverter cartridge positioned within said valve body, said rotatable diverter cartridge defining a plurality of detent recesses;
 - 10 a cap assembled into said valve body and being positioned between said valve body and said rotatable diverter cartridge, said cap including at least one deflectable detent finger constructed and arranged to sequentially engage each of said plurality of detent recesses; and
 - means for manually rotating said rotatable diverter cartridge relative to said cap to change one detent engagement to another detent engagement, wherein each detent engagement corresponds to a different fluid flow selection.

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2. The flow diverter valve assembly of claim 1 wherein said rotatable diverter cartridge defines a flow inlet port and three flow outlet ports.

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3. The flow diverter valve assembly of claim 2 wherein said plurality of detent recesses includes six detent recesses.

4. The flow diverter valve assembly of claim 3 wherein said cap includes a pair of deflectable detent fingers.

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5. The flow diverter valve assembly of claim 4 wherein said six detent recesses are circumferentially, equally spaced apart and said pair of deflectable detent fingers are equally spaced apart such that detent recess engagement by one detent finger occurs when the other detent finger engages another detent recess.

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6. The flow diverter valve assembly of claim 5 wherein each deflectable detent finger includes a raised bump, said raised bump being the portion of each deflectable detent finger that engages its corresponding detent recess.

7. The flow diverter valve assembly of claim 6 which further includes an annular O-ring positioned between said cap and said valve body.

5 8. The flow diverter valve assembly of claim 7 wherein said cap defines a pair of slots associated with each deflectable detent finger, each pair of said slots being positioned adjacent their corresponding deflectable detent finger.

10 9. The flow diverter valve assembly of claim 8 wherein said cap defines a pair of arcuate O-ring grooves, each O-ring groove being positioned between said deflectable detent fingers.

10. The flow diverter valve assembly of claim 1 wherein said plurality of detent recesses includes six detent recesses.

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11. The flow diverter valve assembly of claim 10 wherein said six detent recesses are circumferentially, equally spaced apart and said pair of deflectable detent fingers are equally spaced apart such that detent recess engagement by one detent finger occurs when the other detent finger engages another detent recess.

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12. The flow diverter valve assembly of claim 1 wherein said cap includes a pair of deflectable detent fingers.

25 13. The flow diverter valve assembly of claim 12 wherein each deflectable detent finger includes a raised bump, said raised bump being the portion of each deflectable detent finger that engages its corresponding detent recess.

14. The flow diverter valve assembly of claim 1 which further includes an annular O-ring positioned between said cap and said valve body.

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15. The flow diverter valve assembly of claim 14 wherein said cap defines a pair of arcuate O-ring grooves, each O-ring groove being positioned between said deflectable detent fingers.

5 16. The flow diverter valve assembly of claim 1 wherein said cap defines a pair of slots associated with each deflectable detent finger, each pair of said slots being positioned adjacent their corresponding deflectable detent finger.

10 17. A flow diverter valve assembly comprising:
a valve body defining a plurality of flow passageways;
a movable diverter cartridge positioned within said valve body, said movable diverter cartridge defining at least one detent recess;
15 a cap assembled into said valve body and being positioned between said valve body and said movable diverter cartridge, said cap including at least one movable detent projection constructed and arranged to engage said one detent recess; and
means for manually moving said movable diverter cartridge relative to said cap to disengage said movable detent projection from said at least one detent recess, wherein said detent engagement corresponds to a fluid flow selection..